

**REMARKS**

Claims 1-13 are pending in this application.

The Examiner maintains the 35 U.S.C. § 112, second paragraph, rejection of claims 1-13 due to allegedly indefinite recitations in independent claims 1, 6 and 13. Also, the Examiner cites a new reference – Thornton, and rejects claims 1-13 under 35 U.S.C. § 103(a) as being unpatentable over Paoli in view of Coman et al. (Coman) and the newly-cited Thornton.

Finally, the Examiner again advises that claims 2 and 3 are duplicative of claim 4, claims 7 and 8 are duplicative of claim 10, and claim 11 is duplicative of claim 9.

With regard to the Examiner's § 112, second paragraph, rejection of claims 1-13, Applicant amends claims 1, 6 and 13 to avoid the use of the allegedly vague term "desired" in these claims. Also, Applicant amends claim 6 even more clearly to define the region where the intermediate layer, the active layer and a part of the bottom reflection layer are removed. These amendments are merely clarifying amendments and do not change the scope of claims 1, 6 and 13. No estoppel is created.

With regard to the Examiner's allegation that some of the dependent claims are duplicative, Applicant respectfully maintains that the Examiner is incorrect for the reasons set forth in Applicant's Amendment filed June 12, 2003 (see Id., pages 6 and 7). The Examiner is respectfully requested to review these reasons and respond thereto with specificity.

With regard to the prior art rejection, Applicant respectfully traverses this rejection as follows.

As explained in the Amendment filed June 12, 2003, one of the features of Applicant's claimed invention is that a plurality of surface emitting lasers are configured to a selected resonance wavelength by adjusting the thickness of the dielectric layers of the dielectric reflection layer.

The Examiner acknowledges that "Paoli does not disclose obtaining different wavelengths by adjusting the DBR [distributed Bragg reflectors]", and relies on Thornton as allegedly supplying this acknowledged deficiency (see Office Action, page 4). Contrary to the Examiner's analysis, Thornton does not disclose, teach or suggest obtaining different wavelengths by adjusting the DBR.

Thornton discloses nothing more than a conventional multiwavelength semiconductor laser wherein:

The compositions of the active layers 13-15 are chosen such that the first active layer 15, closest to the active surface designated 16, has the shortest bandgap and is thus capable of lasing at the longest wavelength, and the bandgap and lasing wavelengths of the two remaining layers 14 and 13 progressively increase, respectively decrease, as their distance from the active surface 16 progressively increases toward the substrate 11.  
(Id., col. 3, line 57-65)

Thornton also discloses that layer 12 can be replaced with a DBR mirror 52, and that stack mirrors 44, 45 and 46 may be deposited on the exposed surfaces of active regions 15, 14 and 13, and that "mirrors 44, 45 and 46 would be adjusted in wavelength to be optimal at the respective wavelengths of their emitting laser region" (see Id., col. 4, line 58 through col. 5, line2).

Nowhere does Thornton disclose, teach or suggest adjusting the thickness of its mirrors 44, 45, 46 to configure lasers 20, 21 and 22 to a desired wavelength. In fact, Thornton discloses quite the opposite:

*... selection of a particular wavelength output is easily obtained by selectively disabling longer wavelength active regions [13-15], if any, to access or enable the active region of the desired wavelength.*

*It will also be appreciated that the mirror formed by the stack of dielectric layers is not critical to this aspect of the invention.* The top mirror can also be formed, for example, by a stack of semiconductor layers functioning to reflect radiation, or by a DBR stack, or by a III-V semiconductor compound layer.

(Id., col. 5, lines 17-27, emphasis added).

Thus, Applicant's independent claims 1, 6 and 13, as well as the dependent claims 2-8 and 7-12 (which incorporate all the novel and unobvious features of their respective base claims 1 and 6) would not have been obvious from any reasonable combination of Paoli, Thornton and Coman.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned attorney at the telephone number listed below.

Amendment Under 37 C.F.R. § 1.111  
U.S. Appln No. 09/867,709

Atty Dkt No. Q64254

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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